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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,602

11/09/2006

Ulrich Carlin Nielsen

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EXAMINER

LEE, LAURA MICHELLE

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,602	Applicant(s) NIELSEN, ULRICH CARLIN	
	Examiner LAURA M. LEE	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-24,26-28,30-32,34-41,43 and 44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-24,26-28,30-32,34-41,43 and 44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/07/2011</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 01/07/2011 has been entered. Claims 22-24, 26-28, 30-32, 34-41, 43-44 are still pending, claims 22, 26, 27, 28, 30-32, 40, 41, 43 are currently amended.

Claim Rejections - 35 USC § 112

2. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “quadratic” in claim 22, 41 and 43 is used by the claim to mean “cubic or rectangular”, while the accepted meaning is “a polynomial of the second degree.” The term is indefinite because the specification does not clearly redefine the term. The specification states that “Rectangular, quadratic pieces can hereby be produced...” This is an open ended statement, conveying that while it can be inferred

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that three dimensional rectangular pieces are considered quadratic, it is not known or set forth what other shapes if any may fall into this description. For instance, if the statement read, "Rectangular, polygonal pieces can hereby be produced..." and then claimed, "polygonal pieces", more shapes than rectangular (e.g. triangular) fit that description and would be anticipatory of the claim language. However, as there is no precise definition given to "quadratic" and as its common English definition is not understood in this context, the metes and bounds of the limitation cannot be ascertained.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 22-32, 34-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Demerin (U.S. Patent 3,841,186) in view of Wadell (U.S. Patent 5,186,089) and Kim et al. (U.S. Publication 2003/0145699), herein referred to as Kim and in further view of Rosenberger (U.S. Publication 2002/0035905). In regards to claims 22, 41, 43 and 44, Demerin discloses a method for portion cutting a food item comprising the steps of cutting the food (i.e. pork breast 46) into strips (with cutters Ca1-Ca4) and cutting the strips into substantially quadratic pieces of predetermined weight and/or dimension (same equal vol. or weight; see abstract, with cutters Cb1-Cbn), said second stage

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cutting said strips at a direction substantially perpendicular to the cutting performed at the first stage (fig.1). Dermerin does not disclose the steps of: scanning at least one of a shape, a structure, and/or a dimension of the food item at a first cutting stage by a measuring means; determining using a processor a portion-cutting profile in connection with said scanning; that the cutting of the food item into strips at the first cutting stage in accordance with said portion cutting profile; wherein said step of determining a portion cutting profile comprises determining, in consideration of waste, a predetermined dimension and/or weight for the cutting-up of said food item into said strips and for the cutting up of strips into said substantially quadratic pieces, on the basis of said at least one of a shape, a structure and/or a dimension of said food item.

However, attention is directed to both the Wadell and Kim references. Wadell and Kim both disclose means of cutting foodstuffs into portions utilizing multiple cutting passes. Wadell discloses, like Demerin, the cutting of pork loin (10) which is similarly unsymmetrical at the ends into first strips and then into portions of the product. Wadell discloses first measuring the loin's thickness and length and calculates the section area and conicity of the loin and therefore the volume of each piece to be cut. Wadell then discloses moving that the computer adjusts the spacing of the strip cutting blades to adjust to there new calculated position. Wadell also discloses reorienting the strips into cutting positions for cutting the strips into portions but also discloses scanning the portions a second time before the second cutting sequence. Attention is also directed to the Kim reference. Kim discloses a means of portioning foodstuffs (i.e. meat, poultry or fish) in two or three dimensions by first generating a two or three dimensional map of

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the foodstuff by first scanning the foodstuff as similarly taught by Wadell. Kim discloses that either by assuming that a first dimension of the foodstuff (i.e. thickness) is fixed or by making a first cut to constrain an equal thickness of the foodstuff, that then the foodstuff may be cut into a predetermined width and length as defined by the scanned image (paragraph [0014]) or the foodstuff may be cut into several desired shapes with multiple pass cuts thereby minimizing the waste of the trailing portions (paragraphs [0015 and 0019]). Therefore, as taught by both Wadell and Kim to be desirable to first scan and compute a best profile of the foodstuff or loin in order to maximize the generated food portions it would have been obvious to one having ordinary skill in the art at the time of the invention to have applied these teachings to the Demerin foodstuff cutting apparatus in order to determine the best positioning of the cutting blades to effect equal cut portions of the loin as necessitated by differences in the loins profile.

Therefore, the modified device of Demerin discloses the steps of: scanning (sensors 17 Wadell / step 112 Kim) at least one of a shape, a structure, and/or a dimension of the food item at a first cutting stage by a measuring means (col. 3, lines 10-18 Wadell / scanner 204 Kim); determining using a processor (computer), a portion-cutting profile in connection with said scanning (col. 3, lines 19-24 Wadell/ step 114 Kim); cutting the food item into strips at the first cutting stage in accordance with said portion cutting profile (same equal vol. or weight; see abstract, with cutters Cb1-Cbn Demerin / Wadell col. 3, lines 23-24; fig. 1); and cutting the strips into substantially quadratic pieces of predetermined weight and/or dimension at a second cutting stage (Demerin same equal vol. or weight; see abstract, with cutters Cb1-Cbn /Wadell cutting

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unit 38, Fig.4/ Kim paragraphs [0019 & 0067]), said second cutting stage cutting said strips at a direction substantially perpendicular to the cutting performed at the first stage (rotated by pin 33 Demerin); wherein said step of determining a portion cutting profile comprises determining, in consideration of waste minimization (as shown by movement of the blade; col. 3, lines 20-24 Wadell/ paragraph [0015] Kim), a predetermined dimension and/or weight for the cutting-up of said food item into said strips and for the cutting up of strips into said substantially quadratic pieces (48 Demerin), on the basis of said at least one of a shape, a structure and/or a dimension (two/three dimensional model) of said food item.

The modified device of Demerin still does not disclose that the second cutting stage comprises two or more cutting devices having substantially parallel feeding directions. Attention is also directed to the Rosenberger reference. Rosenberger discloses a method for subdividing a block of frozen foodstuff into small portions by a multi-stage sawing process. A conveyor system transports the foodstuffs between the saws and separates the cut portions along at least two parallel paths to maximize the processing of the foodstuffs thus the cutting loss is minimized and the yield of portions optimized. It similarly would have been obvious to have applied the teachings of Rosenberger to the Demerin apparatus to have each of the cut portions b1-b4 be pushed through parallel operating cutting blades (B) to increase the speed and yield of the cutting operation. It is also noted that the difference between the Demerin and the claimed invention is anticipated by having a second system as shown by Demerin next to the first system. Having two of the same systems side by side is obvious as it

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provides for an increase in the production merely doubles the structure which is already known and since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

In regards to claims 23 and 34, the modified device of Demerin discloses wherein said determining said portion-cutting profile comprises the step of planning the whole of a cutting sequence (Kim generate 3-d image; step 112).

In regards to claim 24 and 35, the modified device of Demerin discloses wherein at least a part of said portion cutting profile is carried out in said first cutting stage (same equal vol. or weight; see abstract, with cutters Cb1-Cbn Demerin / Wadell col. 3, lines 23-24; fig. 1/ Kim paragraphs [0019 & 0067]).

As best understood, in regards to claim 26 and 36, the modified device of Demerin discloses wherein scanning of the shape, structure, and/or dimension of the strips is performed in the two or more additional cutting devices of the second cutting stage (Kim steps 102 or 112 as modified by Rosenberger).

In regards to claim 27, the modified device of Demerin discloses wherein a feeding direction of said two or more additional cutting devices (B/ B as modified) of the second cutting stage is difference from that of a first cutting device (A; see Fig. 1). provided in said first cutting stage.

In regards to claim 28 and 37, the modified device of Demerin discloses wherein at least a part of said portion cutting profile is communicated further to one or more of the additional cutting device (Kim step 124).

In regards to claim 29 and 42, the modified device of Demerin discloses wherein said second cutting stage is comprised of one or more cutting devices (Kim paragraph 0055).

In regards to claim 30 and 40, the modified device of Demerin discloses wherein a feeding direction for the two or more additional cutting devices (B /B; as modified) of the second cutting stage lies substantially at right angles to a feeding direction for a first cutting device (A).

In regards to claim 31, the modified device of Demerin discloses the step of manually placing the food items in the first cutting device (A)(col. 6, lines 59-61 Demerin) provided in the first cutting stage.

In regards to claim 32 and 39, the modified device of Demerin disclose the step of non-manually placing the food item in a first cutting device (A) and/or non-manually transferring the strips to one or more of the additional cutting devices (conveyor 7/ pneumatic cylinder 33 Demerin).

Response to Arguments

5. Applicant's arguments with respect to claims 22-24, 26-28, 30-32, 34-41, 43-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LAURA M. LEE whose telephone number is (571)272-

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8339. The examiner can normally be reached on Monday through Friday, 8:00am to 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571) 272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Laura M Lee/
Primary Examiner, Art Unit 3724